Year 2
Science:
Animals, including humans
Resource Pack
Living things and their offspring
- Animals, including humans, have offspring which grow into adults.
- Recognise that offspring are very much, but not exactly, like their parents.
- Understand that most animal babies need to be fed and cared for by their parents.
- Matching parents and babies correctly (e.g. kitten → cat, tadpole → frog) (Identifying, Classifying & Grouping)
- Compare and contrast baby animals and their parents
- Order the stages in human life (baby > toddler > child > teenager > adult)

Basic needs
- The basic needs of animals, including humans, for survival (water, food, air)

Keeping healthy
- The importance of exercise
- The importance of eating the right amounts of different types of food
- Hygiene
- Free-sorting food into groups and explaining how/why they chose those groups (Classifying & Grouping)
- Sort food pictures into a food groups (Identifying)
- Sort food groups into a food pyramid (Identifying)
- Record a food-diary and evaluate their diet (Observing over time)
- Collect and present data about favourite foods (Pattern seeking)
- Carousel around physical activities thinking about how the activities make their bodies feel

Science Unit Overview– Year Two
Animals, including humans

Application of knowledge
- Children with pets could talk to the class about how they care for them.
- Visit a zoo or farm and learn about how animals are cared for in captivity.
- Explore what happens when animals basic needs are not met
- Learn about how the RSPCA help to keep animals safe including the ‘five freedoms’

Types of scientific enquiry are in (italics)
Lesson 1: What do animals need?

This lesson is the first in a series that teaches Year 2 children about ‘Animals, including Humans’. It builds on the Animals unit taught in Year 1. This lesson recaps some of the learning from Year 1 when children learnt to identify animals from different groups including mammals, fish, amphibians, birds and reptiles – though they did not need to know these group names. Children have the chance to demonstrate what they have remembered from Year 1, and learn about the basic needs of all animals.

See page 261 in What Your Year 1 Child Needs To Know

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| To explore the basic needs of animals, including humans | • All animals have 3 basic needs for survival: water, food, air  
• There are other things which are also important for humans and animals including shelter and being healthy. | • Children to make a list of what makes them happy.  
• Children to imagine they will be alone on a desert island for a month. Discuss what they will need to survive.  
• Children to imagine they were a certain animal – what would their needs be?  
• Children could make different lists for the needs of pets, farm animals, wild animals  
• Children could choose, or be given, a picture of an animal. This could be stuck in the middle of the page and then children can draw/write what it needs around the edge. | survive  
survival  
basic needs | What do humans need to survive?  
Why do you need food?  
Why do you need water?  
What do animals need to survive?  
What would happen if their basic needs were not met? |

Resources:
Image library from the RSPCA for use with activities or on the whiteboard.
L.O.: To explore the basic needs of animals, including humans

<table>
<thead>
<tr>
<th>What makes me happy?</th>
<th>What do I need?</th>
<th>What does a pet need?</th>
<th>What does a farm animal need?</th>
<th>What does a wild animal need?</th>
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Lesson 2: Animals and their offspring

In this lesson children learn about the stages of life for humans from being a baby to an adult. They compare these stages. They also learn about the offspring of different animals and that we often have different names for the babies of animals. Depending on the prior knowledge of your children, you will be able to learn more advanced vocabulary such as names of animals at different life stages.

See page 263 in What Your Year 1 Child Needs To Know

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| To be able to describe animals and their offspring | • Animals, including humans, have offspring which grow into adults.  
• Offspring are very much, but not exactly, like their parents. | • Children to sort and name the stages in human life: baby → toddler → child → teenager → adult  
• Discuss differences between stages e.g What are the differences between toddlers and babies?  
• Watch BBC video about baby animals and discuss similarities/differences between babies and their parents.  
• Go over vocabulary of animals and their babies.  
• Matching parents to babies | kitten > cat  
puppy > dog  
duckling > duck  
chick > hen/chicken  
calf > cow  
piglet > pig  
lamb > sheep  
tadpole > frog  
caterpillar > pupa > butterfly | How are you different from a toddler?  
What is similar about a kitten and a cat? What is different?  
How do animals’ (including humans) needs change as they grow up?  
Ask children for the correct terms for the offspring of a range of animals. |

Resources:  
BBC video about baby animals  
Animal pictures of parents and babies. You could make your own or download from the Twinkl website.
Lesson 3: What do we need to eat?

In this lesson children learn about the five food groups and understand that each group has a different function in the body. Fruit and vegetables are a source of vitamins and minerals which are important for many functions in the body including having a healthy immune system. We are advised to have five portions of a variety of fruit and vegetables each day. Carbohydrates (starchy foods including potatoes, rice, pasta, bread) make up around a third of everything we eat. They are important for providing us with energy and fibre (if we choose whole-grain options, or leave the skin on potatoes). Protein (meat, fish, eggs, beans, nuts) is essential for growth and repair in the body. They also provide vitamins and minerals. Dairy products are also good sources of protein and they provide calcium which is important for healthy bones. Sweets and oils (fats and sugars) also provide energy but most people have too much of these which is unhealthy.

See pages 306-7 in What Your Year 3 Child Needs To Know

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| To be able to sort food into food groups | • We need food to survive.  
• Food can be sorted into different groups.  
• We need the right amount of different types of food to be healthy. | • Children to free sort food into groups and discuss (bring in empty packaging and fruits/vegetables) – alternatively could use images of foods.  
• Introduce the 5 food groups and explain that scientists put food into these groups because they give your body different things that it needs.  
• Children to sort foods into the 5 groups.  
• Introduce food pyramid to show we need different amounts from each group.  
• Children to put foods into the correct group and position on food pyramid.  
• Sing fruit and vegetables song | dairy  
carbohydrates  
protein  
sweets & oils  
fruits & vegetables | Why do we need food?  
Why did you put ___ in the same group as ___?  
Can we eat food from only one group?  
Why/why not?  
Which food group does pizza go into? |

Resources:
- Food packaging or pictures for sorting.
- Vegetables and fruit song from Singup website.
- Labelled pictures of food on TES website for sorting or using with food pyramid
- NHS website on healthy eating (for teacher information)
L.O.: To be able to sort food into food groups
Lesson 4: Do you eat healthily?

In this lesson children develop their understanding of a healthy diet further by thinking about what they eat, and whether they are getting enough from each food group.

*See pages 306-7 in What Your Year 3 Child Needs To Know*

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| To understand what eating healthily means | • Food can be sorted into different groups.  
• We need the right amount of different types of food to be healthy. | • Children to vote which food groups different foods belong to.  
• Children to keep a food diary  
• Children can convert the food diary into a tally chart on a food pyramid and then discuss whether they ate healthily or not.  
• Cross-curricular with maths: children could do a survey of their class’s favourite foods and present the data in a tally chart, and then a block graph. | dairy carbohydrates protein sweets & oils fruits & vegetables balanced portions | Do you eat healthily?  
What do you need to eat more of?  
What do you need to eat less of?  
Which is the class’s favourite food?  
Which is the least popular?  
How many more people liked ___ than ____? |

*Resources:*
*Sesame Street* resources on healthy eating
Lesson 5: Why is exercise important?

This lesson gives the children the opportunity to think more scientifically about the effects of exercise on the body. The children will carry out a range of physical activities and discuss how they make them feel with a view to understanding why they benefit the body. Regular exercise is important and the NHS recommends that children under 18 do an hour of aerobic activity every day – this can include moderate and vigorous-intensity activities. For more information, see the NHS [website](#). It is important for children to learn that this level of exercise is important for strengthening their bones and muscles (including their heart).

*See page 265 of What Your Year 1 Child Needs To Know*

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| To know we need to exercise to be healthy | • Humans need to exercise in order to be healthy.  
• Exercise makes your muscles (including your heart) and your bones stronger.  
• Exercise can make you happier | - Discussion about why warming up before exercise is important (so we are ready for exercise, and we do not injure ourselves).  
- Extension: Discussion about how and why being a professional athlete would affect what you would need to eat. Analogy: If you want a car to drive a long way, it needs more petrol than if you are going a short way.  
- Children to carousel around different physical activities (skipping, star jumps, running on the spot, hopping on the spot, bouncing a basketball, stretching) and answer questions in pairs:  
  *What activity did you do?*  
  *Which parts of your body was it exercising?*  
  *How did you feel afterwards?* | heart  
  muscle  
  exercise  
  stretch  
  warm-up  
  healthy | Why is exercise important for keeping healthy?  
What kinds of exercise do you enjoy doing?  
What exercise can you do outside school? |

**Resources:**  
- NHS Change4Life [resources](#) including active games which could be used instead of the carousel.